

LISTING OF CLAIMS

1. (currently amended) A communication method for performing a group communication among a group comprising a plurality of communication terminals, comprising the steps of:

setting a valid group time period on each of said plurality of communication terminals, wherein said valid group time period is longer than a time for back-and-forth transfer of a communication packet between adjoining communication terminals, and shorter than an expected time for said communication terminals to go out of communication range based on monitoring; and

communicating among a group of remaining said communication terminals, said group comprising any communication terminal that has a terminal time period that does not exceed said set valid group time period.

2. (original) The communication method according to claim 1, wherein said group communication is performed in a wireless ad-hoc network that has a rearrangement frequency of connection higher than a communication frequency due to the movement of said communication terminals.

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3. (currently amended) The communication method according to claim 1, wherein said each of said communication terminals performing said group communication has information regarding its own terminal time period to belong to the group, information about adjoining terminals belonging to said group, and information about terminal time periods for said adjoining terminals to belong to the group.

4. (currently amended) A communication method to perform on-demand group communication among a group comprising a plurality of communication terminals, comprising the steps of:

a first communication terminal that communicates sending a packet including appended information about a valid group time period of the group, as well as its own identification information wherein said valid group time period is longer than a time for back-and-forth transfer of a communication packet between adjoining communication terminals, and shorter than an expected time for said communication terminals to go out of communication range based on monitoring;

each successive communication terminal among said plurality of communication terminals receiving said packet,

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storing said identification information and the information about said valid group time period that are included in said packet, and designating the valid group time period of the group as the valid terminal time period for said successive communication terminal; and

performing said group communication by each of said plurality of communication terminals transferring a packet based on the stored identification information and the information about said valid group time period.

5. (currently amended) The communication method according to claim 4, wherein at least one of said plurality of communication terminals that receives said packet stores said identification information and the information about said valid group time period in a management table for each group.

6. (currently amended) The communication method according to claim 4, wherein at least one of said plurality of communication terminals performing said group communication determines whether the valid group time period has been exceeded based on the stored information about said valid group time period, and prohibits transferring a new packet to any of said plurality of

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communication terminals that have a terminal time period that exceeds ~~exceeded~~ said valid group time period.

7. (currently amended) The communication method according to claim 5, wherein at least one of said plurality of communication terminals performing said group communication determines whether the valid group time period has been exceeded based on the stored information about said valid group time period, and prohibits transferring a new packet to any of said communication terminals that have a terminal time period that exceeds ~~exceeded~~ said valid group time period.

8. (currently amended) A communication method for performing a group communication in a wireless ad-hoc network that has a rearrangement frequency of connection higher than a transmission frequency of communication packets due to the movement of communication terminals, comprising the steps of:

forming a group comprising a plurality of communication terminals that communicate;

defining a valid packet time period for packets for said group;

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providing a ~~short~~ group life time to said group said ~~short~~ group life time being at least twice the valid packet time period;

communicating said ~~short~~ group life time to each of said plurality of communications terminals in said group; and

providing decentralized management of said group based on the life time of said communication terminals.

9. (currently amended) The communication method according to claim 8, wherein the group life time of said group is updated by the transmission of packets.

10. (currently amended) A communication terminal that enables an on-demand group communication among a group comprising a plurality of communication terminals, comprising:

time period setting means for setting a valid group time period during which said terminal belongs to the group wherein said valid group time period is longer than a time for back-and-forth transfer of a communication packet between adjoining communication terminals, and shorter than an expected time for said communication terminals to go out of communication range based on monitoring; and

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communication means for sending a packet, said packet comprising information about said valid group time period set by said time period setting means, as well as terminal identification information, to a group of remaining communication terminals, said group comprising any communication terminal that does not have a terminal time period that exceeds ~~exceeded~~ said set valid group time period.

11. (currently amended) The communication terminal according to claim 10, wherein said time period setting means sets its own terminal time period based on a received valid group time period received from an adjoining terminal.

12-16. (canceled)

18. (currently amended) A communication method for providing at least one communication packet among a group comprising a plurality of communication terminals, comprising the steps of:

setting for each packet, a valid packet time period that is longer than a time for back-and-forth transfer of said communication packet and that is shorter than an

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expected time for said communication terminals to go out of communication range based on monitoring; and

performing on-demand communication in said group within said set valid packet time period.

19. (currently amended) A program storage device readable by machine tangibly embodying a program of instructions for said machine to perform a method for conducting group communications among a group comprising a plurality of communication terminals, wherein said method comprises the steps of:

setting for each packet, a valid packet time period that is longer than a time for back-and-forth transfer of said communication packet and that is shorter than an expected time for said communication terminals to go out of communication range based on monitoring; and

performing on-demand communication in said group within said set valid packet time period.

20. (currently amended) A cellular phone that enables an on-demand type of group communication, comprising:

time period setting means for setting a valid group time period during which said cellular phone itself belongs

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to a group wherein said time period setting means sets said valid group time period that is longer than a time for back-and-forth transfer of a ~~said~~ packet and is shorter than an expected time for itself to go out of communication range; and

communication means for sending a packet with appending the information about said valid group time period set by said time period setting means, as well as its own identification information.

21. (currently amended) The cellular phone according to claim 20, wherein said time period setting means sets its own valid terminal time period based on a received group valid time period received from an adjoining cellular phone sent from that adjoining cellular phone.

22. (canceled)